

TIG2 (E-7): sc-373797

BACKGROUND

Retinoids act through ligand-dependent transcription factors, retinoid X receptor (RXRs) and retinoic acid receptors (RARs). Tazarotene-induced gene (TIG) proteins, also designated retinoic acid receptor responder proteins or RAR-responsive proteins, can be membrane bound or secreted. TIGs act as tumor suppressor genes in human cancers and are highly expressed in skin, hair follicles and endothelial cells as well as in pancreas, spleen and intestine. TIGs are activated by tazarotene and have been implicated as growth regulators that mediate the growth suppressive effects of retinoids. TIG1 is a single-pass type II membrane protein activated by tazarotene and RAR proteins. It belongs to the protease inhibitor I47 (latexin) family of proteins. TIG2 is a secreted protein that is mainly expressed in epidermis, hair follicles and endothelial cells. TIG2 is inhibited in psoriatic lesions and is activated by tazarotene in skin rafts and in epidermis of psoriatic lesions. TIG3 is widely expressed in most tissues, but is not detected in heart, testis or brain. TIG3, which is activated by tazarotene, belongs to the H-rev107 family of proteins. TIG3 acts as a growth regulator and is important for mediating the growth suppressive effects of retinoids.

REFERENCES

- DiSepio, D., et al. 1998. Identification and characterization of a retinoid-induced class II tumor suppressor/growth regulatory gene. *Proc. Natl. Acad. Sci. USA* 95: 14811-14815.
- Tokumaru, Y., et al. 2004. Optimal use of a panel of methylation markers with GSTP1 hypermethylation in the diagnosis of prostate adenocarcinoma. *Clin. Cancer Res.* 10: 5518-5522.
- Youssef, E.M., et al. 2004. Hypermethylation and silencing of the putative tumor suppressor Tazarotene-induced gene 1 in human cancers. *Cancer Res.* 64: 2411-2417.

CHROMOSOMAL LOCATION

Genetic locus: RARRES2 (human) mapping to 7q36.1; Rarres2 (mouse) mapping to 6 B2.3.

SOURCE

TIG2 (E-7) is a mouse monoclonal antibody raised against amino acids 21-163 mapping at the C-terminus of TIG2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TIG2 (E-7) is available conjugated to agarose (sc-373797 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-373797 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373797 PE), fluorescein (sc-373797 FITC), Alexa Fluor[®] 488 (sc-373797 AF488), Alexa Fluor[®] 546 (sc-373797 AF546), Alexa Fluor[®] 594 (sc-373797 AF594) or Alexa Fluor[®] 647 (sc-373797 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-373797 AF680) or Alexa Fluor[®] 790 (sc-373797 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

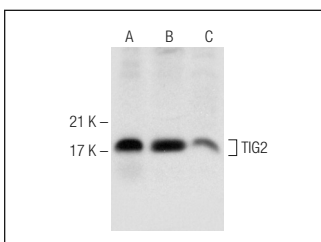
TIG2 (E-7) is recommended for detection of TIG2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TIG2 siRNA (h): sc-61688, TIG2 siRNA (m): sc-61689, TIG2 shRNA Plasmid (h): sc-61688-SH, TIG2 shRNA Plasmid (m): sc-61689-SH, TIG2 shRNA (h) Lentiviral Particles: sc-61688-V and TIG2 shRNA (m) Lentiviral Particles: sc-61689-V.

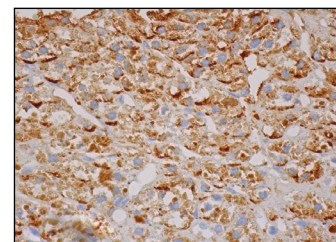
Molecular Weight of TIG2: 19 kDa.

Positive Controls: human heart extract: sc-363763, human lung extract: sc-363767 or human liver extract: sc-363766.

DATA



TIG2 (E-7): sc-373797. Western blot analysis of TIG2 expression in human lung (A), human heart (B) and human liver (C) tissue extracts.



TIG2 (E-7): sc-373797. Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

- Cai, Q., et al. 2016. Tazarotene-induced gene 2 is associated with poor survival in non-small cell lung cancer. *Oncol. Lett.* 12: 2680-2685.
- Nordquist, E., et al. 2018. Postnatal and adult aortic heart valves have distinctive transcriptional profiles associated with valve tissue growth and maintenance respectively. *Front. Cardiovasc. Med.* 5: 30.
- Lavis, P., et al. 2022. Chemerin plasma levels are increased in COVID-19 patients and are an independent risk factor of mortality. *Front. Immunol.* 13: 941663.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.